- 1 Claims
- 2 Claim 1. A computer-implemented prescription management
- 3 system for use by a prescriber in creating a prescription at
- 4 a point of patient care, said prescription being usable by a
- 5 pharmacist to dispense drugs, said prescription management
- 6 system comprising:
- a) electronic posting means to select and capture in said
- 8 prescription:
 - i) a patient identifier;
- 10 ii) a prescribed drug;
- iii) a dosage for said prescribed drug; and
- iv) a patient condition intended by said prescriber to
- be treated by said prescribed drug; and
- b) a displayable library of prescribable drugs; and
- c) displayable patient drug formulary information to
- 16 indicate to said prescriber-user selected ones of said
- 17 prescribable drugs included within a drug formulary
- 18 associated with said patient to enable compliance with drug
- 19 formulary guidelines at the point-of-care.

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- 21 Claim 2. A prescription management system according to
- 22 Claim 1 having means to track preferred data usage by a user
- 23 and to adapt data displays to favor such preferred usage,
- 24 whereby the system learns and adapts to a user's habits.

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26 Claim 3. A prescription management system according to

- 1 Claim 2 wherein at least one said preferred usage data
- 2 display comprises a personal-preference condition-selection
- 3 list for each system user.

- 5 Claim 4. A prescription management system according to
- 6 Claim 2 wherein at least one said preferred usage data
- 7 display comprises a personal-preference drug-selection list
- 8 for each system user.

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- 10 Claim 5. A prescription management system according to
- 11 Claim 1 further comprising a patient history record
- 12 displayed online, said patient history record listing
- 13 electronically available prior prescriptions, said prior
- 14 prescriptions each including a prescribed drug and a
- 15 condition treatment objective for each drug prescribed,
- 16 system-created prescriptions being system-added to said
- 17 history record.

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- 19 Claim 6. A prescription management system according to
- 20 Claim 5 comprising a patient condition list for selection of
- 21 a patient condition for posting to said prescription, said
- 22 patient condition list comprising patient conditions listed
- 23 in said patient history record.

- 25 Claim 7. A prescription management system according to
- 26 Claim 1 comprising a source-oriented data-retrieval

- 1 subsystem, said data retrieval subsystem accessing at least
- 2 one data-retrieval networks to supply an array of up-to-date
- 3 prescribing information and patient-related data to the
- 4 point-of-care from remote source databases.

- 6 Claim 8. A prescription management system according to
- 7 Claim 7 wherein said data-retrieval subsystem is linked to
- 8 the prescription management system to provide allergy and
- 9 interaction alerts, formulary changes, new drug approvals,
- 10 and to lock out or warn against, the prescribing of
- 11 inappropriate or recalled drugs.

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- 13 Claim 9. A prescription management system according to
- 14 Claim 1 wherein said patient history record is dynamically
- 15 assembled online in response to a user request from multiple
- 16 source record elements retrieved from multiple heterogenous
- 17 remote databases.

- 19 Claim 10. A prescription management system according to
- 20 Claim 9 implemented on a user interface device configured
- 21 for networked digital communication with a host computer
- 22 facility, wherein said patient history record is retrieved
- 23 as said record elements from said remote databases by said
- 24 host computer facility in response to a call from said user
- 25 device said remote source databases being selected and
- 26 identified according to said patient's prior geographical

1 locations and health-care service providers.

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- 3 Claim 11. A prescription management system according to
- 4 Claim 5 wherein said patient history record is a virtual
- 5 patient record newly assembled online in response to each
- 6 user request for said record thereby to be current with
- 7 regard to possible remote updates of said source record
- 8 elements.

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- 10 Claim 12. A prescription management system according to
- 11 Claim 11 wherein said host computer facility logs the time,
- 12 date and user calling for said virtual patient record to
- 13 provide an audit trail of access to said patient's record,
- or a provider's or organization's data.

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- 16 Claim 13. A prescription management system according to
- 17 Claim 11 deployed comprehensively throughout a geographical
- 18 area, demographic, company, plan or community group whereby
- 19 all drug prescriptions created in said area are products of
- 20 said system and wherein all said drug prescriptions are
- 21 posted to source databases accessible to said system whereby
- 22 a complete patient history record of all drug prescriptions
- 23 created for said patient in said geographical area,
- 24 demographic, company, plan or community group can be listed
- 25 in said dynamically assembled virtual patient record.

- 1 Claim 14. A prescription management system according to
- 2 Claim 1 wherein said drugs in said drug list are classified
- 3 according to a patient condition for which said drugs have
- 4 efficacy and said prescription management system further
- 5 comprises a patient-condition specification procedure for
- 6 selecting said condition from groups of possible conditions
- 7 and an onscreen drug selection procedure for selecting said
- 8 prescribed drug from said library, listing multiple drugs
- 9 for treating each said patient problem.

- 11 Claim 15. A prescription management system according to
- 12 Claim 1 wherein said patient drug formulary display means
- 13 comprises a condition-driven formulary drug list, and a
- 14 condition-driven nonformulary drug list, said drug lists
- 15 being changeable according to the patient selected.

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- 17 Claim 16. A prescription management system according to
- 18 Claim 15 wherein said system provides drug efficacy
- 19 guidelines based on patient information and formulary
- 20 information.

21

- 22 Claim 17. A prescription management system according to
- 23 claim 3
- 24 wherein said prescriber-user's personal-preference list of
- 25 drugs displayed with formulary drugs indicated.

- 1 Claim 18. A prescription management system according to
- 2 Claim 1 including relative cost information for displayed
- 3 formulary drugs.

- 5 Claim 19. A prescription management system according to
- 6 Claim 1 wherein said drug formulary is generated by a
- 7 prescription benefits management company by providing
- 8 computer access to remote databases containing said drug
- 9 formulary information whereby appropriate formulary drugs
- 10 are presented to said user on screen on a user interface
- 11 device deployable at said point-of-care, to facilitate
- 12 compliance with drug formulary guidelines at said point-of-
- 13 care.

14

- 15 Claim 20. A prescription management system according to
- 16 Claim 1
- wherein prescribability of a drug pursuant to formulary
- 18 guidelines is formulary-qualified according to said patient
- 19 condition.

- 21 Claim 21. A prescription management system according to
- 22 Claim 1 comprising built-in logic for accessing drug
- 23 formulary information from multiple drug formulary providers
- 24 wherein said drug formulary list is selected from said
- 25 multiple available drug formularies according to said
- 26 patient identification, said patient having a prior

arrangement with said drug formulary provider to provide 1 prescription-related benefits to that patient, said drug . 2 formulary list information being dynamically presented to 3 said prescriber-user in the form of at least one selection 4 of patient-specific formularies from which a formulary 5 status indication relevant to a patient therapy-related 6 choice made by said prescriber-user is made. 7 8 Claim 22. A prescription management system according to 9 Claim 21 comprising network data communication means to 10 update and maintain said multiple available formularies from 11 12 remote source databases of formulary information. 13 Claim 23. A prescription management system according to 14

Claim 1 wherein comprising means to categorize and display 15 16 said patient conditions categorized into multiple lists, 17 said lists being selected from the group consisting of a 18 personal condition list of conditions encountered by the prescriber, a historical condition list of conditions 19 20 exhibited by the patient, one or more prescriber-customized condition lists, a body system condition list, conditions 21 22 organized according to disease pathology, therapy, personal 23 knowledge and others.

24

25 Claim 24. A prescription management system according to 26 Claim 23 wherein drug selection is condition driven and said

- 1 prescriber selects a patient condition to be treated via at
- 2 least one of said condition lists.

- 4 Claim 25. A prescription management system according to
- 5 Claim 24 wherein a prescriber-user can intelligently to
- 6 access a large body of drug data selections via multiple
- 7 condition-driven routes to provide multiple mapping so that
- 8 the user can find a suitable drug or selection of drugs via
- 9 different pathways according to their preferred work
- 10 methods.

11

- 12 Claim 26. A prescription management system according to
- 13 Claim 1 wherein said electronic posting means can select and
- 14 capture dosage and route of administration information, and
- optionally, length-of-treatment and generic substitution
- 16 authorization information, for a selected drug, said
- 17 information being system-available for all listed drugs.

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- 19 Claim 27. A prescription management system according to
- 20 Claim 26 comprising network data communication means to
- 21 update and maintain said dosage information said dosage
- 22 information being dynamically supplied from a remote source
- 23 database when called by the system.

- 25 Claim 28. A prescription management system according to
- 26 Claim 1 comprising a prescription expiration routine

- 1 including dosing, amount and expiration drug quantifiers and
- 2 system calculation of a relationship between said drug
- 3 quantifiers where said system provides default values for
- 4 unspecified ones of said drug quantifiers in response to
- 5 user selection of one or more of said drug quantifiers and
- 6 optionally patient history information, formulary
- 7 information indicating preferred drug lists for treatment.

- 9 Claim 29. A prescription management system according to
- 10 Claim 2 comprising a patient data access control subsystem
- 11 including data access control specification means enabling a
- 12 patient to authorize a user to access said patient's history
- 13 data and comprising data access control means whereby only
- 14 an authorized user can access said patient's data.

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- 16 Claim 30. A prescription management system according to
- 17 Claim 29 comprising a patient data access auditor, said
- 18 patient data access auditor generating an access record
- 19 logging information as to the time date and identity of
- 20 entities accessing said patient history data, to provide a
- 21 patient data access audit trail and optionally further
- 22 comprising similar access audit means for generating an
- 23 access record logging similar information regarding access
- 24 to a prescriber' or organization's data.

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26 Claim 31. A prescription management system according to

- 1 Claim 1 comprising a patient data access subsystem providing
- 2 patient-directed control of the flow of their own data.

- 4 Claim 32. A prescription management system according to
- 5 Claim 31 wherein said patient-directed data-access control
- 6 is achieved by centrally inputting to said patient data
- 7 access subsystem at a host computer facility, patient-
- 8 generated record-access specifications determining which
- 9 parties can access what data during what period of time.

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- 11 Claim 33. A prescription management system according to
- 12 Claim 32 wherein said patient-generated record-access
- 13 specifications provide a patient security profile in a pre-
- 14 authorization file said pre-authorization file being used to
- 15 control access to said patient's data.

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- 17 Claim 34. A prescription management system according to
- 18 Claim 1 comprising user-related historical records generated
- 19 by operation of said system by a prescriber-user, a user
- 20 data-access control subsystem including data-access control
- 21 specification means enabling a user to authorize selective
- 22 third party access to said user's history data and
- 23 comprising data access control means whereby only an
- 24 authorized third party can access said user's data and what
- 25 data type may be accessed by what organization or provider.

- 1 Claim 35. A prescription management system according to
- 2 Claim 20 comprising a user data access auditor, said user
 - 3 data access auditor generating an access record logging
 - 4 information as to the time date and identity of third
- 5 parties accessing said user history data, to provide a user
- 6 data access audit trail.

- 8 Claim 36. A prescription management system according to
- 9 Claim 1 comprising organization-generated source data
- 10 retrievable for display in said prescription-management
- 11 system from at least one remote database an organization-
- 12 directed data-access control subsystem including data-access
- control specification means enabling an organization to
- 14 authorize selective third party access to said organization-
- 15 generated source data and comprising data access control
- 16 means whereby only an authorized third party can access said
- 17 organization-generated source data.

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- 19 Claim 37. A prescription management system according to
- 20 Claim 36 comprising an organization data access auditor,
- 21 said organization data access auditor generating an access
- 22 record logging information as to the time date and identity
- 23 of third parties accessing said organization-generated
- 24 source data to provide an organization data access audit
- 25 trail.

- 1 Claim 38. A prescription management system according to
- ·2 Claim 2 comprising newly created prescription evaluation
- 3 means to evaluate a newly prescribed drug for system-known
- 4 patient allergies or drug-to-drug interactions, or drug-to-
- 5 multiple drug interactions and absolute contraindications
- 6 with currently prescribed drugs, as known to the system.

- 8 Claim 39. A prescription management system according to
- 9 Claim 2 comprising a drug alert subsystem for communicating
- 10 alerts relating to unfavorable or cautionary characteristics
- of particular drugs wherein said alerts are associated with
- 12 system information on the drug so that when a user calls up
- 13 the drug in question, they receive the warning or alert, or
- 14 other special message.

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- 16 Claim 40. A prescription management system according to
- 17 Claim 39 wherein said drug alert subsystem is operative to
- 18 communicate drug withdrawal information to system users
- 19 electronically in real time or when said withdrawn drug is
- 20 selected for prescribing or a warning is posted directly to
- 21 the prescription.

- 23 Claim 41. A prescription management system according to
- 24 Claim 40 whereby a drug can be withdrawn from the market the
- 25 same day by making a system entry preventing completion of a
- 26 prescription for the withdrawn drug.

- 1 Claim 42. A prescription management system according to
- 2 Claim 40 wherein current users of a drug or medication can
- 3 be identified from prescription history records, referencing
- 4 not only drugs prescribed, but also prescription expiry
- 5 dates and both the patient and their doctor are notified of
- 6 said drug withdrawal optionally for the physician via direct
- 7 point-to-point electronic mail.

- 9 Claim 43. A prescription management system according to
- 10 Claim 1 comprising onscreen electronic mail access to other
- 11 users of said system, said electronic mail capability
- 12 additionally being linked with said prescription creation
- 13 function and enabling a prescriber-user to append an
- 14 electronic record to a prescription or prescription-related
- 15 record.

16

- 17 Claim 44. A prescription management system according to
- 18 Claim 43 wherein said electronic mail provides a platform
- 19 for accessing other artificial intelligence and expert
- 20 systems and optionally providing linkage for transaction
- 21 services such as the ordering and reviewing of scheduling
- 22 and similar administrative functions.

- 24 Claim 45. A prescription management system according to
- 25 Claim 1
- 26 comprising a patient-selection subsystem whereby preliminary

- 1 selection of groups of patients can be made by providing
- .2 multiple patient lists selected from the group consisting of
- 3 "Today's Patients", "In-Patients", "Out-Patients", "Private
- 4 Patients" and others.

- 6 Claim 46. A prescription management system according to
- 7 Claim 45 wherein said patient lists are system-maintained,
- 8 on an ongoing basis, using the latest data available to the
- 9 system and include intelligent patient selection means
- 10 enabling the user to select a convenient group of patients
- 11 that has a high probability of including the next patient or
- 12 patients to be encountered, thereby speeding access and
- 13 retrieval of a desired patient record.

14

- 15 Claim 47. A prescription management system according to
- 16 Claim 1 comprising onscreen access to drug detail
- 17 information as to indications, interactions, side effects
- 18 and precautions.

19

- 20 Claim 48. A prescription management system according to
- 21 Claim 1 comprising a drug literature-retrieval subsystem to
- 22 retrieve drug -related information across a network from a
- 23 remote heterogenous database for display to said user in
- 24 real time.

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26 Claim 49. A prescription management system according to

- 1 Claim 48 wherein said drug literature-retrieval subsystem
- ·2 provides the user with an access point to full disclosure
- 3 and prescribing information on a selected drug and wherein
- 4 available said drug information is selected from the group
- 5 consisting of drug-treatment guidelines, one or more
- 6 literature references supporting said guidelines, details of
- 7 the particular conditions for which a system-suggested
- 8 alternative drug has been found effective, adverse
- 9 conditions, preferred dosages and administration routes,
- 10 literature sources and other relevant drug-prescribing
- 11 information.

- 13 Claim 50. A prescription management system according to
- 14 Claim 49 wherein said drug literature-retrieval subsystem is
- operative to enable a physician, to have a hard or printed
- 16 copy, or other media form of relevant studies or literature
- 17 sent to them by onscreen selection, said onscreen selection
- 18 being system-communicated to a source for said study or
- 19 literature information.

20

- 21 Claim 51. A prescription management system according to
- 22 Claim 49 wherein said drug literature-retrieval subsystem is
- 23 operative to provide a simple nonintrusive technique for
- 24 bringing new drug information to physicians at a point of

25 care when creating a prescription.

- 1 Claim 52. A prescription management system according to
- ·2 Claim 49 comprising an outcome study subsystem for selecting
- 3 outcome study participants by centrally maintaining patient-
- 4 directed patient-record-access specifications whereby the
- 5 system can include records of patients agreeable to becoming
- 6 study participants in such outcome studies pursuant to
- 7 indications in their patient-record-access specifications
- 8 optionally with output of said study data being controlled
- 9 to comply with access specifications of prescribers and
- 10 organizations having proprietary rights thereto.

- 12 Claim 53. A prescription management system according to
- 13 Claim 1 comprising a new drug surveillance subsystem to
- 14 conduct post introduction market surveillance of new drugs
- 15 for adverse outcomes to the treatment of a specified
- 16 condition or conditions with the newly introduced drug.

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- 18 Claim 54. A prescription management system according to
- 19 Claim 53 wherein said new drug surveillance subsystem is
- 20 operative to monitor patients reporting new problems after
- 21 having been prescribed the new drug in question, refer such
- 22 new problems to the physician user to qualify them for
- 23 medical relevance and then statistically compare a
- 24 collection of similar reports with data on a pool of
- 25 similarly treated patients for significance.

- 1 Claim 55. A prescription management system according to
- ·2 Claim 1 wherein said condition list comprises at least five
- 3 conditions, and said drug list comprises at least five
- 4 drugs.

- 6 Claim 56. A prescription management system according to
- 7 Claim 1 wherein said drug information comprises associated
- 8 condition information and dosage information for at least
- 9 about fifty percent of all prescribable FDA-approved drugs.

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- 11 Claim 57. A prescription management system according to
- 12 Claim 1 comprising means to output a newly created
- 13 electronic prescription in any desired form such as to
- 14 print, to local or remote storage or to remote file transfer
- as an electronic prescription.

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- 17 Claim 58. A prescription management system according to
- 18 Claim 1 comprising means for transmitting said electronic
- 19 prescription across a network for fulfillment by a specified
- 20 pharmacy.

21

- 22 Claim 59. A prescription management system according to
- 23 Claim 57 comprising a printed dosage schedule output for
- 24 said patient.

25

26 Claim 60. A prescription management system according to

- 1 Claim 1 wherein multiple physicians accessed by a patient
- .2 utilize the system described herein, with common online
- 3 access to, and assembly of, a patient's prescription history
- 4 record whereby that record provides a current record of new
- 5 prescriptions, then a common abuse can be controlled wherein
- 6 a patient presents a problem or condition to more than one
- 7 physician to obtain multiple prescriptions with a view to
- 8 indulging in abusive ingestion or illicit resale.

- 10 Claim 61. A prescription management system according to
- 11 Claim 1 wherein the system also provides, for example in the
- 12 patient's history record, notification from a pharmacy, or
- 13 from a drug benefit plan linked to the pharmacy, of
- 14 fulfillment of a prescription, and that information is
- 15 available to the prescriber, for example from the patients'
- 16 history record, another common abuse wherein a patient
- 17 pleads loss of a prescription to obtain a duplicate, can
- 18 also be prevented.

- 20 Claim 62. A prescription management system according to
- 21 Claim 1 wherein the system also provides, for example in the
- 22 patient's history record, notification from a pharmacy, or
- 23 from a drug benefit plan linked to the pharmacy, of
- 24 fulfillment of a prescription, and that information is
- 25 available to the prescriber, for example from the patients'
- 26 history record, wherein a patient's failure to have a

to said prescription;

prescription fulfilled indicating discontinuance of the 1 prescribed therapy can be monitored and possibly corrected. . 2 3 Claim 63. A prescription produced by the system of claim 1 4 output in a form selected from the group consisting of 5 electronic, paper, digitized voice and fax. 6 7 Claim 64. A prescription management system for electronic 8 prescription creation by a prescriber at a point of patient 9 care, said prescription being usable by a pharmacist to 10 dispense drugs, said prescription management system 11 comprising electronic posting means to select and capture in 12 13 said prescription: i) a patient identifier; 1.4 15 ii) a prescribed drug; iii) a cosage for said prescribed drug; and 16 iv) a patient condition intended by said prescriber to 17 18 be mitigated by said prescribed drug. 19 Claim 65. A prescription management system according to 20 Claim 64 further comprising an onscreen drug selection 21 22 procedure having a patient condition list specifying multiple possible patient conditions, having a drug list 23 specifying multiple possible prescribable drugs and having 24 drug specification means to select and post a desired drug 25

- 1 wherein drugs in said drug list are classified according to
- .2 a patient condition for which said drugs have efficacy and
- 3 said onscreen drug selection procedure lists multiple drugs
- 4 for treating each said patient problem.

- 6 Claim 66. A prescription management system according to
- 7 Claim 64 comprising drug formulary information being a
- 8 selected list of drugs being preferred for prescribing by a
- 9 drug benefit provider to said patient.

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- 11 Claim 67. In combination, a host computer facility and a
- 12 prescription management system according to claim 64
- 13 implemented on said host computer facility said host
- 14 computer facility supporting network delivery of user-
- 15 relevant components of said prescription management system
- 16 to multiple remote user interface devices and providing data
- 17 and communications resources for users to draw upon
- 18 employing said interface devices.

- 20 Claim 68. A combination according to claim 67 wherein said
- 21 host computer facility can communicate with multiple
- 22 heterogenous remote databases to retrieve complementary data
- 23 elements from said databases and comprises:
- i) a dynamic record assembly procedure for online assembly
- of a data record from said complementary data elements;
- 26 and

customer benefit.

1	ii) a user-device communication procedure to deliver said
2	dynamically assembled record to a calling user-
3	interface device as an integral data component of said
4	prescription management system.
5	
6	Claim 69. A professional product specification system for
7	electronically creating a technical specification usable by
8	a professional to specify technical products said product
9	specification system comprising:
10	a) electronic posting means to select and capture in said
L1	prescription:
12	i) a customer identifier;
13	ii) a specified product; and
14	iii) product specifications; and
15	b) an onscreen product selection procedure having a
16	product benefit list specifying multiple possible
L 7	customer benefits having a product list specifying
18	multiple possible specifiable products and having
L9	product specification means to select and post a
20	desired product to said specification;
21	wherein products in said product list are classified
22	according to a customer-useful technical purpose attainable
23	with said products and said onscreen product selection
24	procedure lists multiple products for providing each said

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